

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (canceled)

Claim 25 (currently amended): A method for cleaning a source gas introduction pipe used in a CVD apparatus, ~~which cleans~~ the source gas introduction pipe having an outer surface having contaminant ~~mainly containing carbon powder adhering thereto, the contaminant mainly containing carbon powder and being formed to an outer surface of the source gas introduction pipe~~ during processes in which a plastic bottle container is accommodated into a sealable deposition chamber having a function of an outer electrode, source gas is introduced from ~~[[a]]~~ the source gas introduction pipe which is elevatably inserted into the plastic bottle container and ~~[[also]]~~ acts as an inner electrode, and the source gas is excited into plasma to form a CVD (~~Chemical Vapor Deposition~~) film on an inner surface of the plastic bottle container, ~~wherein~~ comprising:

extracting the source gas introduction pipe from the plastic container after the CVD film is formed on the inner surface of the plastic container;

while spraying compressed air is sprayed toward the outer surface of the source gas introduction pipe the contaminant so as to remove the contaminant adhering to the outer surface; and~~[[,]]~~

sucking ~~[[the]]~~ removed contaminant ~~is exhausted to exhaust the removed~~ contaminant outside a system of the deposition chamber ~~by suction and exhausting means so that and to prevent the removed contaminant removed by the spray of the compressed air is not from being transferred to sides of the deposition chamber and the plastic container in which the CVD film is formed in a process for extracting the source gas introduction pipe from the plastic container after the CVD film is formed on the inner surface of the plastic container.~~

Claim 26 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 25, wherein the compressed air is sprayed toward the outer surface in a centripetal direction of the source gas introduction pipe from a compressed air spray portion provided in an upper portion of the deposition chamber or at a position above the deposition chamber.

Claim 27 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to either one of claims 25 or 26, wherein the compressed air and the contaminant are sucked and removed into a suction and exhaust portion provided at ~~[[the]]~~ a position above the spray portion by the sucking ~~suction and exhausting means~~.

Claim 28 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 25, wherein the compressed air spray portion is provided in the upper portion of the deposition chamber or at the position above the deposition chamber, ~~[[the]]~~ a suction and exhaust portion is provided at ~~[[the]]~~ a position above the spray portion, a second compressed air spray portion is provided at ~~[[the]]~~ a position above the suction and exhaust portion, the spray portion sprays the compressed air from the bottom toward the top, the second spray portion sprays the compressed air from the top toward the bottom, and the suction and exhaust portion sucks and removes the compressed air and the contaminant.

Claim 29 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to any one of claims 25, 26, or 28, wherein ~~[[the]]~~ an amount of suction and exhaust by the ~~suction and exhausting means~~ sucking is larger than ~~[[the]]~~ an amount of air supply of the compressed air.

Claim 30 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 27, wherein ~~[[the]]~~ an amount of suction

and exhaust by the ~~suction and exhausting means~~ sucking is larger than ~~[[the]]~~ an amount of air supply of the compressed air.

Claim 31 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to any one of claims 25, 26, or 28, wherein deposition of the CVD film is separately performed in ~~[[the]]~~ a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by spraying the compressed air in the process ~~[[for]]~~ of extracting the source gas introduction pipe from the plastic container, and the process ~~[[for]]~~ of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 32 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 27, wherein deposition of the CVD film is separately performed in ~~[[the]]~~ a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by spraying the compressed air in the process ~~[[for]]~~ of extracting the source gas introduction pipe from the plastic container, and the process ~~[[for]]~~ of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 33 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 29, wherein deposition of the CVD film is separately performed in ~~[[the]]~~ a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by spraying the

compressed air in the process ~~[[for]]~~ of extracting the source gas introduction pipe from the plastic container, and the process ~~[[for]]~~ of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 34 (currently amended): A method for cleaning a source gas introduction pipe used in a CVD apparatus, ~~which cleans~~ the source gas introduction pipe having an outer surface having contaminant ~~mainly containing carbon powder adhering thereto, the contaminant mainly containing carbon powder and being formed to an outer surface of the source gas introduction pipe~~ during processes in which a plastic ~~bottle~~ container is accommodated into a sealable deposition chamber having a function of an outer electrode, source gas is introduced from ~~[[a]]~~ the source gas introduction pipe which is elevatably inserted into the plastic ~~bottle~~ container and ~~[[also]]~~ acts as an inner electrode, and the source gas is excited into plasma to form a CVD (Chemical Vapor Deposition) film on an inner surface of the plastic ~~bottle~~ container, ~~wherein comprising:~~

extracting the source gas introduction pipe from the plastic container after the CVD film is formed on the inner surface of the plastic container;

while blowing ultrasonic air is blown toward the outer surface of the source gas introduction pipe so as to remove the contaminant adhering to the outer surface; and~~[[,]]~~

sucking ~~[[the]]~~ removed contaminant is exhausted to exhaust the removed contaminant outside a system of the deposition chamber ~~by suction and exhausting means so that and to prevent the removed contaminant removed by the blow of the ultrasonic air is not from being transferred to sides of the deposition chamber and the plastic container in which the CVD film is formed in a process for extracting the source gas introduction pipe from the plastic container after the CVD film is formed on the inner surface of the plastic container.~~

Claim 35 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 34, wherein the ultrasonic air is blown toward the outer surface in a centripetal direction of the source gas introduction pipe from an ultrasonic air blow portion provided in an upper portion of the deposition chamber or at a position above the deposition chamber.

Claim 36 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to either one of claims 34 or 35, wherein the ultrasonic air and the contaminant are sucked and removed into a suction and exhaust portion provided at ~~[[the]]~~ a position above the blow portion by the sucking ~~suction and exhausting~~ means.

Claim 37 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 34, wherein the ultrasonic air blow portion is provided in the upper portion of the deposition chamber or at the position above the deposition chamber, ~~[[the]]~~ a suction and exhaust portion is provided at ~~[[the]]~~ a position above the blow portion, a second ultrasonic air blow portion is provided at ~~[[the]]~~ a position above the suction and exhaust portion, the blow portion blows the ultrasonic air from the bottom toward the top and the second blow portion blows the ultrasonic air from the top toward the bottom, and the suction and exhaust portion sucks and removes the ultrasonic air and the contaminant.

Claim 38 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to any one of claims 34, 35, or 37, wherein ~~[[the]]~~ an amount of suction and exhaust by the sucking ~~suction and exhausting~~ means is larger than ~~[[the]]~~ an amount of air supply of the ultrasonic air.

Claim 39 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 36, wherein ~~[[the]]~~ an amount of suction

and exhaust by the sucking ~~suction and exhausting means~~ is larger than [[the]] an amount of air supply of the ultrasonic air.

Claim 40 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to any one of claims 34, 35, or 37, wherein deposition of the CVD film is separately performed in [[the]] a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by blowing the ultrasonic air in the process [[for]] of extracting the source gas introduction pipe from the plastic container, and the process [[for]] of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 41 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 36, wherein deposition of the CVD film is separately performed in [[the]] a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by blowing the ultrasonic air in the process [[for]] of extracting the source gas introduction pipe from the plastic container, and the process [[for]] of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 42 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 38, wherein deposition of the CVD film is separately performed in [[the]] a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by blowing the

ultrasonic air in the process ~~[[for]]~~ of extracting the source gas introduction pipe from the plastic container, and the process ~~[[for]]~~ of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 43 (currently amended): The method for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 39, wherein deposition of the CVD film is separately performed in ~~[[the]]~~ a plurality of deposition chambers ~~arranged~~ positioned in a circle on a turntable, the contaminant mainly containing the carbon powder which ~~adhere~~ adheres to the outer surface of the source gas introduction pipe is removed by blowing the ultrasonic air in the process ~~[[for]]~~ of extracting the source gas introduction pipe from the plastic container, and the process ~~[[for]]~~ of sucking and exhausting the removed contaminant outside the system of the deposition chamber is completed, while the turntable is rotated one turn.

Claim 44 (currently amended): An apparatus for cleaning a source gas introduction pipe used in a CVD apparatus, ~~which cleans~~ the source gas introduction pipe having an outer surface having contaminant mainly containing carbon powder adhering thereto, to an outer surface of the source gas introduction pipe the contaminant mainly containing carbon powder and being formed during processes in which a plastic ~~bottle~~ container is accommodated into a sealable deposition chamber having a function of an outer electrode, source gas is introduced from ~~[[a]]~~ the source gas introduction pipe which is elevatably inserted into the plastic ~~bottle~~ container and ~~[[also]]~~ acts as an inner electrode, and the source gas is excited into plasma to form a CVD (~~Chemical Vapor Deposition~~) film on an inner surface of the plastic ~~bottle~~ container, comprising:

source gas introduction pipe extracting means for extracting the source gas introduction pipe from the plastic container ~~in synchronization with a time~~ after ~~[[the]]~~ a formation of the CVD film on the inner surface of the plastic container~~[[,]]~~;

compressed air spraying means for spraying compressed air toward the outer surface of the source gas introduction pipe having the contaminant adhering thereto~~[[,]]~~ and

suction and exhausting means for exhausting the contaminant removed by ~~the spray of spraying~~ the compressed air outside a system of the deposition chamber so ~~[[that]]~~ as to prevent the contaminant ~~is not~~ from being transferred to sides of the deposition chamber and the plastic container in which the CVD film is formed.

Claim 45 (currently amended): The apparatus for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 44, wherein a spray portion of the compressed air sprayed by the compressed air spraying means is ~~arranged~~ provided around the outside of the source gas introduction pipe and in an upper portion of the deposition chamber or at a position above the deposition chamber.

Claim 46 (currently amended): The apparatus for cleaning a source gas introduction pipe used in a CVD apparatus according to either one of claims 44 or 45, wherein a suction and exhaust portion for sucking and removing the compressed air and the contaminant is ~~arranged~~ provided around the outside of the source gas introduction pipe and at ~~[[the]]~~ a position above the spray portion.

Claim 47 (currently amended): The apparatus for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 44, wherein the spray portion of the compressed air sprayed by the compressed air spraying means is ~~arranged~~ provided around the outside of the source gas introduction pipe and in the upper portion of the deposition chamber or at the position above the deposition chamber, ~~[[the]]~~ a suction and exhaust portion for sucking and removing the compressed air and the contaminant is ~~arranged~~

provided around the outside of the source gas introduction pipe and at ~~[[the]]~~ a position above the spray portion, a second spray portion of the compressed air sprayed by the compressed air spraying means is ~~arranged~~ provided around the outside of the source gas introduction pipe and at the position above the suction and exhaust portion, a compressed air spray direction of the spray portion is orientated upward, and the compressed air spray direction of the second spray portion is orientated downward.

Claim 48 (currently amended): An apparatus for cleaning a source gas introduction pipe used in a CVD apparatus, ~~which cleans~~ the source gas introduction pipe having an outer surface having contaminant ~~mainly containing carbon powder adhering thereto, the contaminant mainly containing carbon powder and being formed to an outer surface of the source gas introduction pipe~~ during processes in which a plastic ~~bottle~~ container is accommodated into a sealable deposition chamber having a function of an outer electrode, source gas is introduced from ~~[[a]]~~ the source gas introduction pipe which is elevatably inserted into the plastic ~~bottle~~ container and ~~[[also]]~~ acts as an inner electrode, and the source gas is excited into plasma to form a CVD (~~Chemical Vapor Deposition~~) film on an inner surface of the plastic ~~bottle~~ container, comprising:

source gas introduction pipe extracting means for extracting the source gas introduction pipe from the plastic container ~~in synchronization with a time~~ after ~~[[the]]~~ a formation of the CVD film on the inner surface of the plastic container~~[[,]]~~;

ultrasonic air blowing means for blowing ultrasonic air toward the outer surface of the source gas introduction pipe having the contaminant adhering thereto~~[[,]]~~ and

suction and exhausting means for exhausting the contaminant removed by ~~the blow of blowing~~ the ultrasonic air outside a system of the deposition chamber so ~~[[that]]~~ as to prevent the contaminant ~~is not~~ from being transferred to sides of the deposition chamber and the plastic container in which the CVD film is formed.

Claim 49 (currently amended): The apparatus for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 48, wherein a blow portion of the ultrasonic air blown by the ultrasonic air blowing means is ~~arranged~~ provided in an upper portion of the deposition chamber or at a position above the deposition chamber.

Claim 50 (currently amended): The apparatus for cleaning a source gas introduction pipe used in a CVD apparatus according to either one of claims 48 or 49, wherein a suction and exhaust portion for sucking and removing the ultrasonic air and the contaminant is ~~arranged~~ provided at ~~[[the]]~~ a position above the blow portion.

Claim 51 (currently amended): The apparatus for cleaning a source gas introduction pipe used in a CVD apparatus according to claim 48, wherein the blow portion of the ultrasonic air blown by the ultrasonic air blowing means is ~~arranged~~ provided in the upper portion of the deposition chamber or at the position above the deposition chamber, ~~[[the]]~~ a suction and exhaust portion for sucking and removing the ultrasonic air and the contaminant is ~~arranged~~ provided at ~~[[the]]~~ a position above the blow portion, a second blow portion of the ultrasonic air blown by the ultrasonic air blowing means is ~~arranged~~ provided at the position above the suction and exhaust portion, an ultrasonic air blow direction of the blow portion is orientated upward, and the ultrasonic air blow direction of the second blow portion is orientated downward.

Claim 52 (currently amended): A method for cleaning a source gas introduction pipe used in a CVD apparatus, ~~which cleans~~ the source gas introduction pipe having contaminant ~~mainly containing carbon powder~~ adhering thereto, the contaminant mainly containing carbon powder and being formed to an outer surface of the source gas introduction pipe during processes in which a plastic ~~bottle~~ container is accommodated into a sealable deposition chamber having a function of an outer electrode, source gas is introduced from ~~[[a]]~~ the source gas introduction pipe which is elevatably inserted into the plastic ~~bottle~~

container, and the source gas is excited into plasma with a micro wave to form a CVD
(Chemical Vapor Deposition) film on an inner surface of the plastic ~~bottle~~ container, wherein
comprising:

extracting the source gas introduction pipe from the plastic container after the CVD
film is formed on the inner surface of the plastic container;

~~while applying one of~~ compressed air is sprayed and ultrasonic air toward the outer
surface of the source gas introduction pipe to remove the contaminant adhering to the outer
surface; or ultrasonic air is blown toward the contaminant;

sucking [[the]] removed ~~contaminant removed by the spray of the compressed air or~~
~~the blow of the ultrasonic air is exhausted~~ to exhaust the removed contaminant outside a
system of the deposition chamber ~~by suction and exhausting means so that~~ so as to prevent
the removed ~~contaminant is not~~ from being transferred to sides of the deposition chamber and
the plastic container in which the CVD film is formed ~~in a process for extracting the source~~
~~gas introduction pipe from the plastic container after the CVD film is formed on the inner~~
~~surface of the plastic container.~~

Claim 53 (currently amended): An apparatus for cleaning a source gas introduction
pipe used in a CVD apparatus, ~~which cleans the source gas introduction pipe having~~
~~contaminant mainly containing carbon powder~~ adhering thereto, the contaminant mainly
containing carbon powder and being formed to an outer surface of the source gas introduction
~~pipe~~ during processes in which a plastic ~~bottle~~ container is accommodated into a sealable
deposition chamber having a function of an outer electrode, source gas is introduced from
[[a]] the source gas introduction pipe which is elevatably inserted into the plastic bottle
container, and the source gas is excited into plasma with a micro wave to form a CVD film
on an inner surface of the plastic ~~bottle~~ container, comprising:

source gas introduction pipe extracting means for extracting the source gas introduction pipe from the plastic ~~bottle container~~ ~~in synchronization with a time~~ after ~~[[the]]~~ a formation of the CVD film on the inner surface of the plastic ~~bottle container~~[[,]];

compressed air spraying means for spraying compressed air toward the outer surface of the source gas introduction pipe having the contaminant adhering thereto[[,]] and

suction and exhausting means for exhausting the contaminant removed by ~~the spray of spraying~~ the compressed air outside a system of the deposition chamber so ~~[[that]]~~ as to prevent the contaminant is not from being transferred to sides of the deposition chamber and the plastic container in which the CVD film is formed.

Claim 54 (currently amended): An apparatus for cleaning a source gas introduction pipe used in a CVD apparatus, ~~which cleans the source gas introduction pipe having an outer surface having contaminant mainly containing carbon powder adhering thereto, the contaminant mainly containing carbon powder and being formed to an outer surface of the source gas introduction pipe~~ during processes in which a plastic ~~bottle container~~ is accommodated into a sealable deposition chamber having a function of an outer electrode, source gas is introduced from ~~[[a]]~~ the source gas introduction pipe which is elevatably inserted into the plastic ~~bottle container~~, and the source gas is excited into plasma with a micro wave to form a CVD (~~Chemical Vapor Deposition~~) film on an inner surface of the plastic ~~bottle container~~, comprising:

source gas introduction pipe extracting means for extracting the source gas introduction pipe from the plastic container ~~in synchronization with a time~~ after ~~[[the]]~~ a formation of the CVD film on the inner surface of the plastic container[[,]];

ultrasonic air blowing means for blowing ultrasonic air toward the outer surface of the source gas introduction pipe having the contaminant adhering thereto[[,]] and

suction and exhausting means for exhausting the contaminant removed by ~~the blow of~~ blowing the ultrasonic air outside a system of the deposition chamber so ~~[[that]]~~ as to prevent the contaminant ~~is not~~ from being transferred to sides of the deposition chamber and the plastic container in which the CVD film is formed.

Claim 55 (currently amended): The apparatus for cleaning a source gas introduction pipe according to any one of claims 44, 45, 47, 48, 49, 51, 52, 53, or 54, wherein a substrate material used for the source gas introduction pipe is made of SUS 304 or SUS 316 whose surface is polished or a material in which SUS 304 or SUS 316 is coated with ~~acid hard gold plating~~ hard gold plating film acid type bath ~~such as including one of 99.7Au-0.3Co and 99.8Au-0.2Ni which is of the material of~~ for surface treatment.

Claim 56 (currently amended): The apparatus for cleaning a source gas introduction pipe according to claim 46, wherein a substrate material used for the source gas introduction pipe is made of SUS 304 or SUS 316 whose surface is polished or a material in which SUS 304 or SUS 316 is coated with ~~acid hard gold plating~~ hard gold plating film acid type bath ~~such as including one of 99.7Au-0.3Co and 99.8Au-0.2Ni which is of the material of~~ for surface treatment.

Claim 57 (currently amended): The apparatus for cleaning a source gas introduction pipe according to claim 50, wherein a substrate material used for the source gas introduction pipe is made of SUS 304 or SUS 316 whose surface is polished or a material in which SUS 304 or SUS 316 is coated with ~~acid hard gold plating~~ hard gold plating film acid type bath ~~such as including one of 99.7Au-0.3Co and 99.8Au-0.2Ni which is of the material of~~ for surface treatment.